



Summer Training Report

The Complete 2022 Web Development BootCamp

UNDERTAKEN AT

Udemy

Submitted by:

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B.Tech - IT
7th Semester

DECLARATION

I, Nikhil Das, hereby declare that I have completed the course 'The Complete Web Development Bootcamp' by Udemy and taught by Dr. Angela Yu. This course provided me with a comprehensive understanding of web development and equipped me with the necessary skills to create and design professional websites. I have gained knowledge on various topics including HTML, CSS, JavaScript, jQuery, Bootstrap, NodeJS, ExpressJS, MongoDB and many more. I am confident that this training will greatly benefit me in my future endeavours as a web developer. This report is a true reflection of my understanding and knowledge gained during the training.

The matter embodied in this training report has not been submitted by me or anybody else to any institution for award of any other degree or diploma except to **University School of Information, Communication & Technology**, for the fulfilment of the requirements for the award of degree of Bachelors of Technology.

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ACKNOWLEDGEMENT

The time I spent while learning and completing the module exercise was a memorable one for me as it was rich in experience sharing and helped me discover my potential. I have had so many experiences and opportunities that I personally believe will forever shape and influence my professional skills while fostering personal growth and development.

With a sage sense of gratitude, I acknowledge various people who directly or indirectly contributed to the development of my skills and who influenced my thinking, behaviour & acts during this Course. I express my deep sense of gratitude to Udemy & Dr. Angela Yu, founder of the London App Brewery, for the wonderful platform they created which contributed immensely to my development. I would also like to thank my parents and my friends whose love and guidance are with me in whatever I pursue

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ORGANIZATION PROFILE



Udemy, Inc. is a global destination for teaching and learning online. It was founded in May 2010 by Eren Bali, Gagan Biyani, and Oktay Caglar. As of November 2022, the platform has more than 57 million students, 213,000 courses, and 74,000 instructors teaching courses in over 75 languages. There have been over 773 million course enrolments. Students take courses primarily to improve job-related skills. Some courses generate credit toward technical certification. Udemy has made a special effort to attract corporate trainers seeking to create coursework for employees of their company. The headquarters of Udemy is located in San Francisco, US, with hubs in Denver, US; Dublin, Ireland; Ankara, Turkey; Sao Paulo, Brazil; and Gurugram, India.

About the Course

At 65+ hours, this Web Development course is without a doubt the most comprehensive web development course available online. Even if you have zero programming experience, this course will take you from beginner to mastery. Here's why:

- The course is taught by the **lead instructor** at the App Brewery, London's **leading in-person programming bootcamp**.
- The course has been updated to be **2022 ready** and you'll be learning the latest tools and technologies used at large companies such as Apple, Google and Netflix.
- This course doesn't cut any corners, there are beautiful **animated explanation videos** and tens of **real-world projects** which you will get to build.
- The curriculum was developed over a period of **four years**, with comprehensive student testing and feedback.

Throughout this comprehensive course, I covered a massive amount of tools and technologies, including:

- **Front-End Web Development:** Front-end development, also known as client-side development, refers to the practice of creating the user interface and the visual aspects of a website or web application. It involves using languages such as HTML, CSS, and JavaScript to create the structure, layout, and design of a website. Front-end developers are responsible for creating the look and feel of a website, as well as making sure it is interactive and user-friendly. They also often optimize a website for performance and accessibility. The goal of front-end development is to create a seamless and enjoyable experience for the end user.
- **HTML 5:** HTML5 is a markup language used for structuring and displaying content on the web. It is the latest version of HTML (Hypertext Markup Language), which is the standard for creating web pages. HTML5 is designed to improve the functionality and performance of web pages, and to make it easier for developers to create web-based applications. HTML5 includes new tags and attributes that provide additional functionality, such as the <video> and <audio> tags for embedding multimedia, the <canvas> tag for drawing graphics, and the <nav> and <article> tags for structuring content. It also includes new form controls, such as the "date" and "search" input types, and new semantic tags, such as <header> and <footer>, to give more meaning to the structure of web pages. HTML5 also introduces

new APIs, allowing developer to access the device's camera, geolocation, offline storage and web workers, etc. Additionally, HTML5 is designed to be more compatible with mobile devices and to work well with other web technologies such as CSS and JavaScript. It also allows for more efficient and effective use of web storage, and includes features such as offline caching, which enables web pages to be accessed even when the device is not connected to the internet. Overall, the main goal of HTML5 is to provide a more powerful and flexible platform for creating web-based applications, making it easier for developers to create rich and interactive web pages.

- **CSS 3:**
CSS3 (Cascading Style Sheets) is a style sheet language used for describing the presentation of a document written in a markup language. It is the latest version of CSS, which is used to style and layout web pages.
CSS3 introduces new features and capabilities that allow developers to create more sophisticated and visually appealing designs.
- **Bootstrap 4:** Bootstrap is a free, open-source front-end framework for creating responsive, mobile-first websites and web applications. It was developed by Twitter and is now maintained by a community of developers.
Bootstrap provides a set of pre-defined CSS and JavaScript components, such as navigation bars, forms, buttons, and modals, that can be easily integrated into a website or web application. It also includes a responsive grid system that allows for the creation of responsive, mobile-friendly layouts.
Bootstrap is built with HTML, CSS, and JavaScript, and it is designed to work well with modern web browsers. It is also highly customizable, and developers can easily modify the default styles to match the look and feel of their website or application.
Bootstrap is widely used by developers for its ease of use, responsive design capabilities and a wide range of pre-designed UI components. It's also widely supported by other libraries and frameworks such as Angular, React, and Vue.
- **Javascript ES6:** JavaScript ES6, also known as ECMAScript 6 or ECMAScript 2015, is the latest version of the JavaScript programming language. It is an update to the language that introduced many new features and improvements, aimed at making JavaScript more powerful, expressive, and easy to use.
Some of the new features of JavaScript ES6 include
let and const: ES6 introduces two new ways to declare variables, "let" and "const", which provide better control over variable scope and can help prevent accidental variable reassignments.
Arrow functions: ES6 introduced a shorthand notation for writing

anonymous functions, called arrow functions, which make the code more concise and readable.

Template literals: ES6 introduced a new way of defining strings, called template literals, which allow for the creation of multi-line strings, and the use of string interpolation.

Classes: ES6 introduced classes, a new way to create objects, creating a more familiar and class-based approach to object-oriented programming.

Modules: ES6 introduced a new way to organize and reuse code, called modules, which allow for the creation of self-contained, reusable code blocks.

Promises: ES6 introduced a new way of handling asynchronous code, called promises, which makes it easier to handle asynchronous operations and avoid "callback hell".

- **DOM Manipulation:** DOM (Document Object Model) manipulation refers to the process of manipulating the structure, content, and style of a web page using JavaScript.
When a web page is loaded, the browser creates a representation of the HTML code, called the DOM, which is a tree-like structure of elements, known as nodes. Each node in the DOM corresponds to an element in the HTML code, and can be accessed and manipulated using JavaScript.
- **jQuery:** jQuery is a popular, open-source JavaScript library that simplifies the process of DOM manipulation, event handling, and creating animations and other effects on web pages. It was created to make it easier for developers to work with JavaScript, especially when it comes to cross-browser compatibility issues.
One of the main features of jQuery is its ability to select and manipulate HTML elements using a simple, easy-to-use syntax. For example, instead of using the `getElementById()` method, you can use the `$('#element')` to select an element by its id. jQuery also provides a wide range of built-in methods for performing common tasks, such as making an AJAX request, creating animations, and handling events, such as clicks and mouse overs.
- **Bash Command Line**
- **Git, GitHub and Version Control:** Git is a version control system (VCS) that allows developers to track changes made to the source code of their software projects. It allows developers to work on different versions of a project at the same time, and to easily switch between versions, merge changes, and roll back to previous versions if needed. Git is a distributed version control system, which means that each developer has a copy of the entire project history on their local machine, allowing them to work offline and collaborate with others

without the need of a central server.

GitHub is a web-based platform that provides hosting for Git repositories. It allows developers to store their code online, share it with others, and collaborate on projects.

GitHub provides a web interface that makes it easy for developers to work with Git, including features such as pull requests, code reviews, and issue tracking. It also allows for easy collaboration and code sharing, as well as access control, making it a popular choice among developers.

- **Reactjs:** React.js is a JavaScript library for building user interfaces, particularly web-based applications. It was developed by Facebook and is now maintained by a community of developers. React.js uses a concept called "components" to build a web page or application. A component is a piece of code that represents a specific part of the UI, such as a button, a form, or a navigation menu. Each component can be defined and managed independently, which makes it easy to update and maintain the application. React.js uses a virtual DOM (Document Object Model) which improves the performance of web applications by reducing the amount of direct manipulation of the actual DOM. React.js also uses a feature called "JSX" which allows developers to write HTML-like code in JavaScript, making it more intuitive and easier to understand for developers. React.js is also highly customizable and is often used in combination with other libraries and frameworks such as Redux, MobX, and GraphQL. Overall, React.js is a popular and powerful library for building web-based user interfaces, providing a component-based approach to building web applications, high performance, and easy maintenance.
- **Backend Web Development, Node.js, NPM, Express.js, EJS, REST, APIs, Databases, SQL, Authentication, Firebase, Web Design, Deployment with GitHub Pages, Heroku and MongoDB Atlas**

Project-1

Creating CV using just plain HTML.

Created a simple Resume on web using just plain HTML

```
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8" />
5     <meta http-equiv="X-UA-Compatible" content="IE=edge" />
6     <meta name="viewport" content="width=device-width, initial-scale=1.0" />
7     <title>Nikhil Das</title>
8   </head>
9
10  <body>
11    <table cellpadding="30">
12      <tr>
13        <td>
14
15        </td>
16        <td>
17          <h2>Nikhil Das</h2>
18          <p>
19            <em>Aspiring Full Stack web developer</em><br />
20            <br />
21            <em>
22              Department of
23              <strong>Information Technology</strong> <br />
24              3rd year undergraduate<br />
25              <strong>
26                <a href="http://ipu.ac.in/usict/" target="_blank">USICT</a>
27              </strong>
28              , Delhi.
29            </em>
30          </p>
31        </td>
32      </tr>
33    </table>
34
35    <hr size="3" noshade />
36    <p></p>
37    <h3>Education</h3>
38    <ul>
```

```
63   </tr>
64   <tr>
65     <td>Web development</td>
66     <td>✪ ✪ ✪ ✪ ✪ ✪ </td>
67   </tr>
68   <tr>
69     <td>C++/C</td>
70     <td>✪ ✪ ✪ ✪ ✪ ✪ ✪ ✪ </td>
71   </tr>
72   <tr>
73     <td>Data Structure & Algorithms</td>
74     <td>✪ </td>
75   </tr>
76 </table>
77
78 <hr size="3" noshade />
79 <p>
80   Connect:
81   <a href="https://twitter.com/RahOwlll" target="_blank">Twitter,</a>
82   <a
83     href="https://www.linkedin.com/in/rahul-chauhan-41a8bb18b/"
84     target="_blank"
85   >Linkedin,</a>
86   >
87 </p>
88 <p>
89   Subscribe to my newsletter.
90   <em>
91     <a href="https://asymptoticinsights.substack.com/"
92     >Asymptotic Insights</a>
93   >
94 </em>
95 </p>
96 </body>
97 </html>
98
```

Nikhil Das

Aspiring Full Stack web developer

*Department of **Information Technology**
3rd year undergraduate
@USICT, Delhi.*

Education

- University School of Information and Communication Technology (2019-present)
- Bengali Senior Secondary School (2011-2018)

Work Experience & Certifications

Oct 2021 Goldman Sachs Virtual Internship

Sep 2020 Getting started with Python

Skills

Visuals



Web development



C++/C



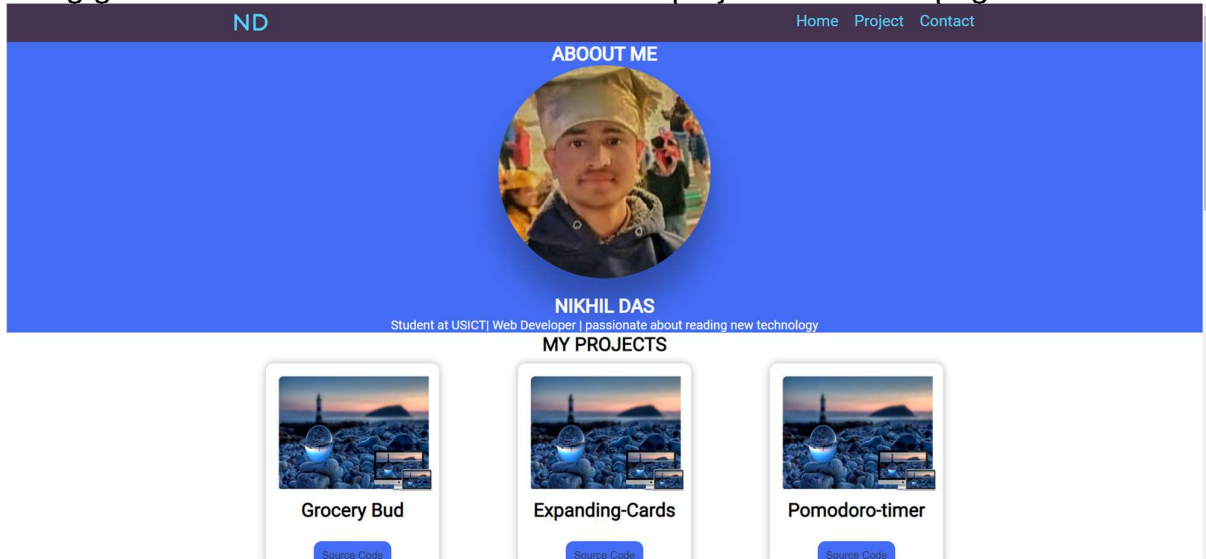
Data Structure & Algorithms



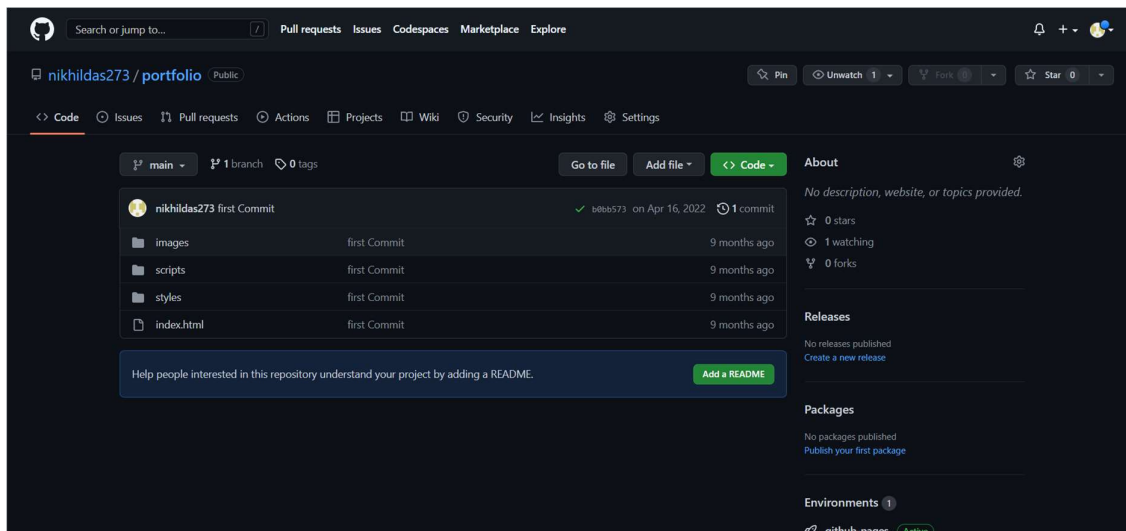
Project-2

Creating portfolio using HTML & CSS.

Created a portfolio on web using HTML & CSS and then pushed the code to GitHub using git and command line. Then Hosted the project on GitHub pages.



Hosted the same on GitHub pages.



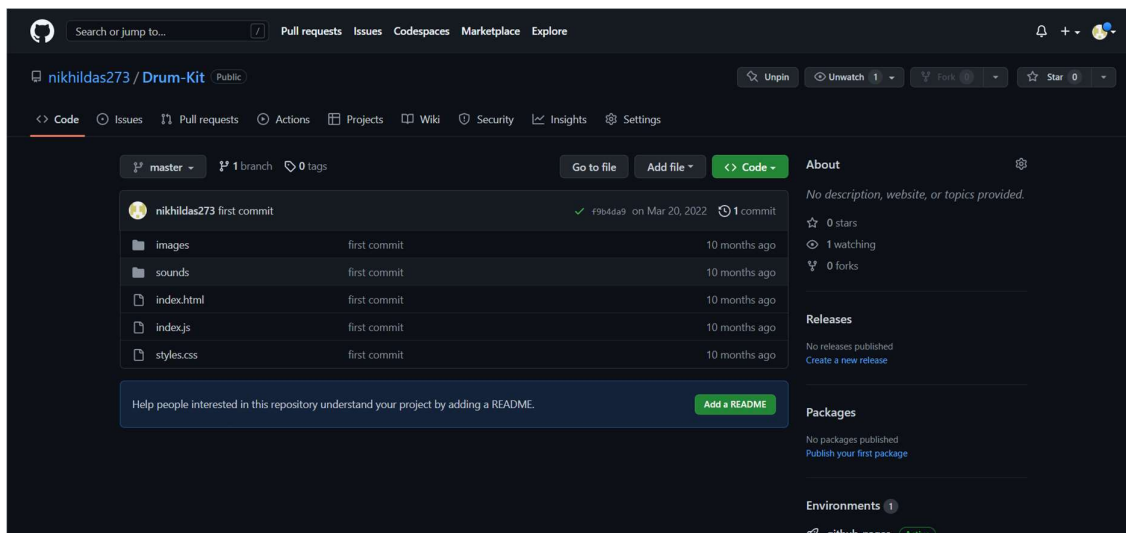
Project-3

Drum Kit

The project uses advanced DOM, javascript, HTML, CSS. User can press certain buttons on keyboard and sound as shown instrument is played. User can also press on the instrument to play the sound.



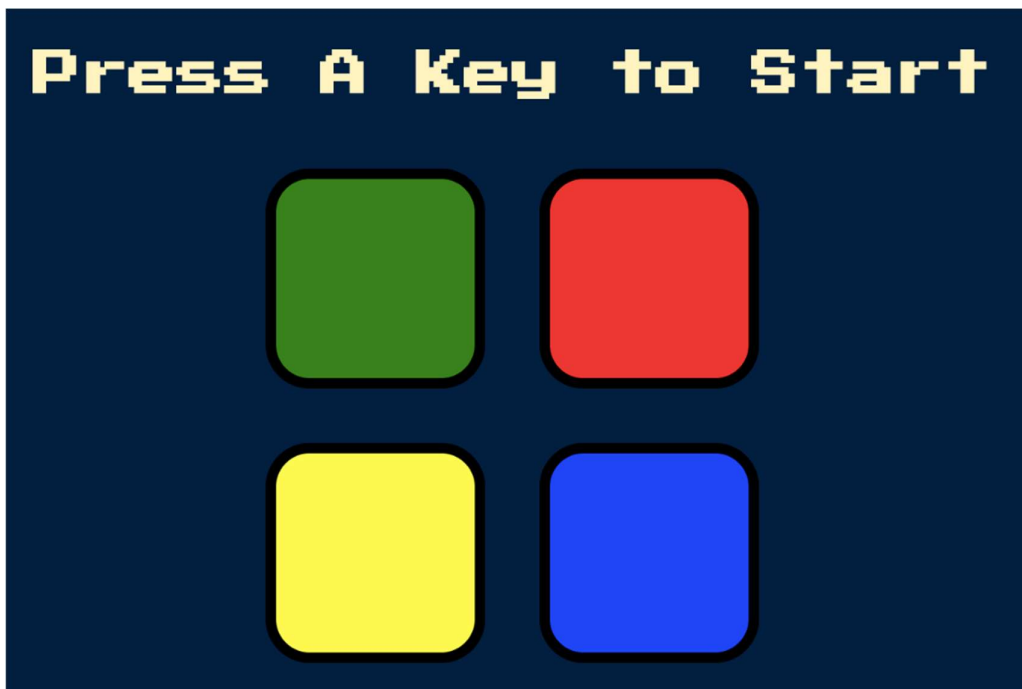
Hosted the same on GitHub pages.

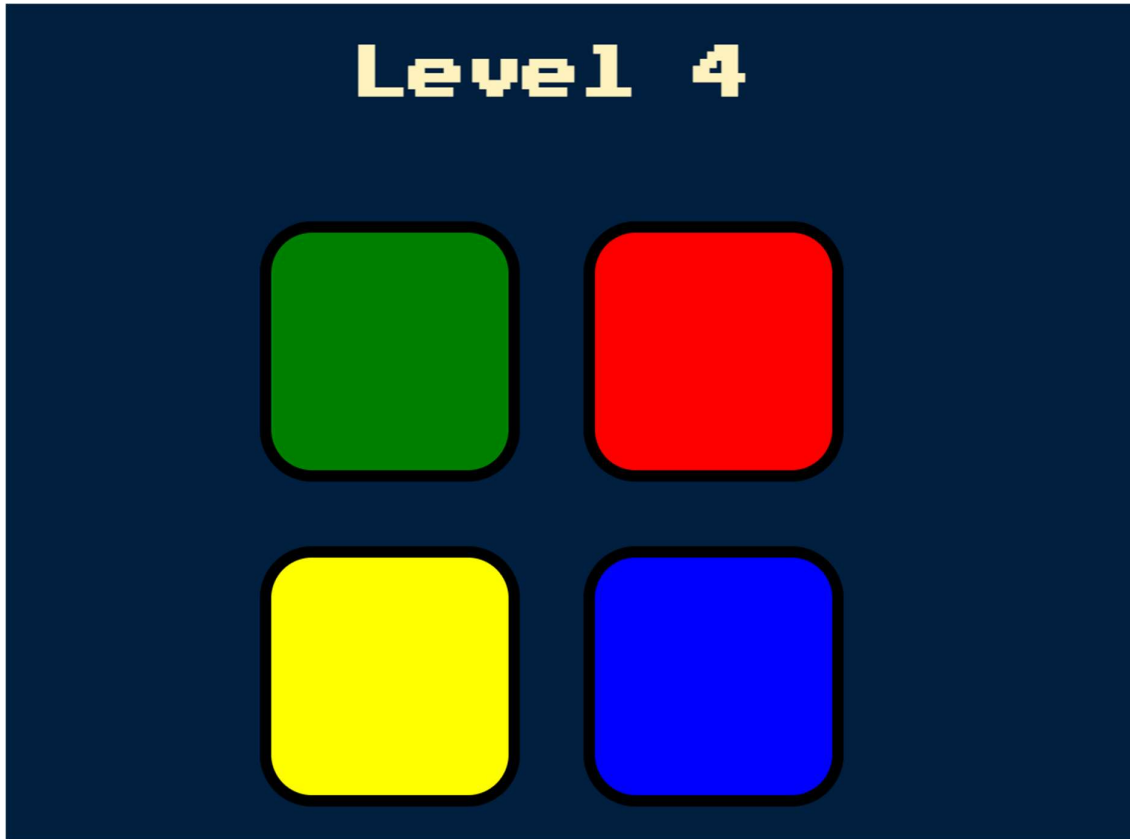


Project-4

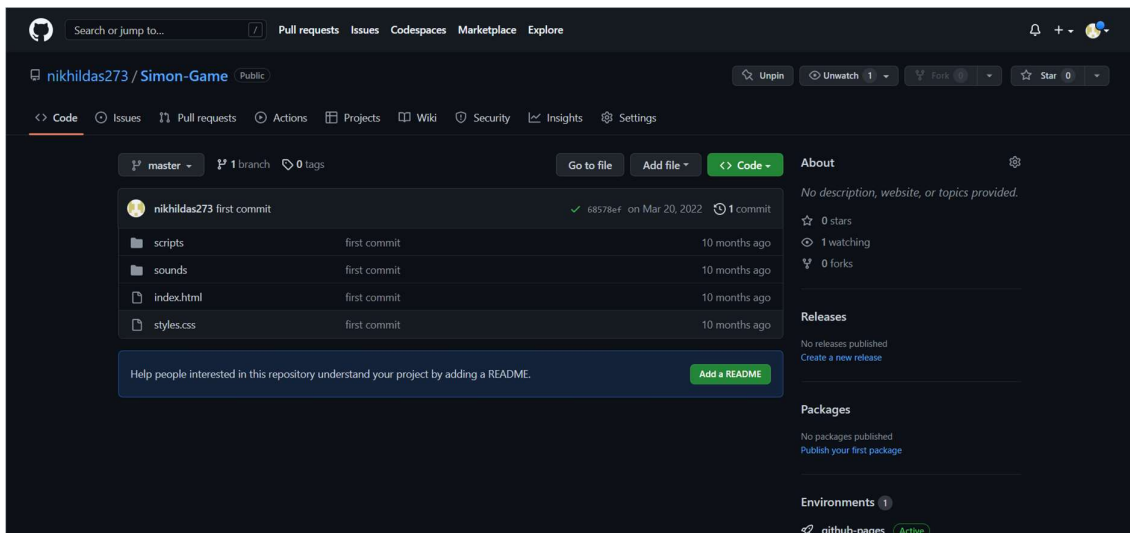
Simon Game

This game is extremely basic, and you just press any key to start the game which triggers the game mechanism that beeps one of the four colored boxes on the screen. The beeped box goes into an array which stores the sequence of color buttons to be pressed. The user then has to copy that particular sequence and once the full sequence has been copied another colored button gets added to that sequence making the sequence longer as each level progresses. The user can make upto as many stages as they are able to. I added sounds to the game upon button pressing and gameover sound when the player loses the game. All the sound files are available in the sounds folder.





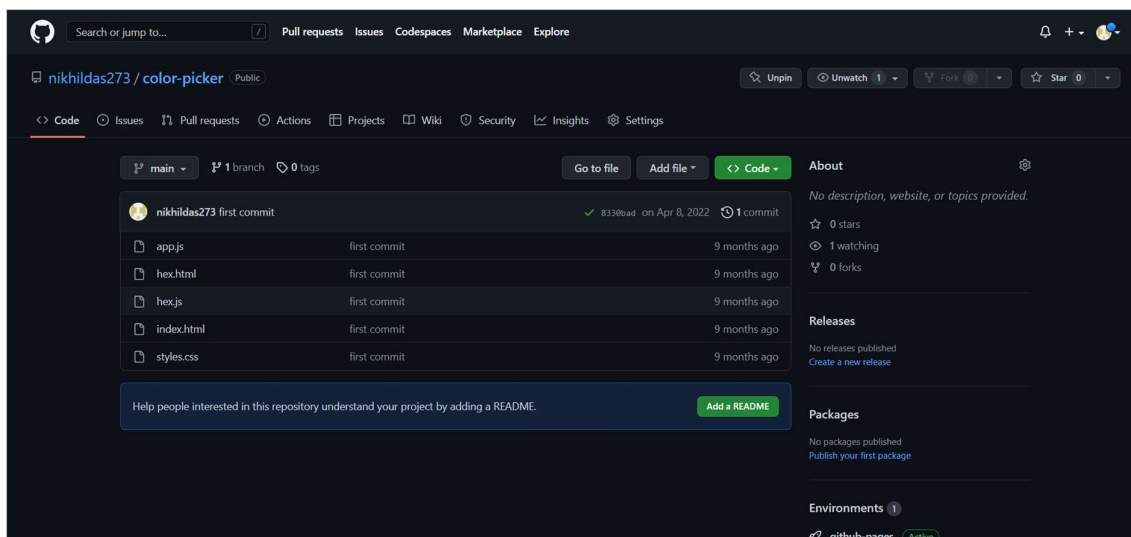
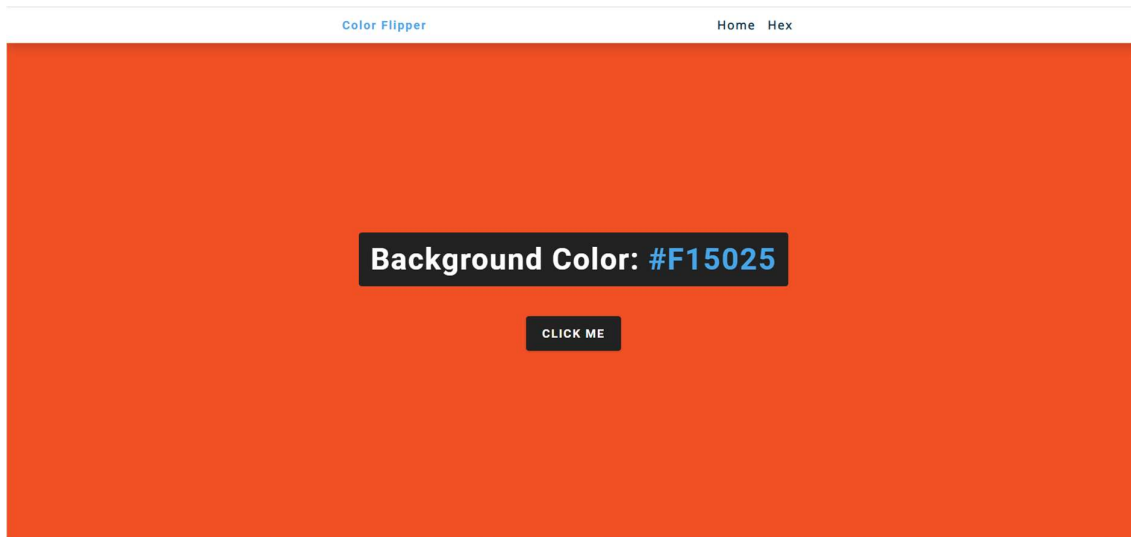
Hosted the same on GitHub pages.



Project-5

Color Picker

A color picker is a user interface element that allows a user to select a color from a predefined palette or to define a custom color using color-specific input fields (e.g. RGB or HEX values).



Project-6

Grocery Bud

A grocery budget list is a list of items that you plan to purchase at the grocery store, along with the estimated cost of each item. This list can help you stay within your budget and avoid overspending on groceries. It can also help you plan your meals and make sure you have all the ingredients you need.

Grocery Bud

Eggs

Milks

Bread

☒

☐

☒

☐

☒

☐

Clear Items

Grocery Bud

Eggs

Milks

Bread

☒

☐


☒

☐

☒

☐

Clear Items



[Pull requests](#) [Issues](#) [Codespaces](#) [Marketplace](#) [Explore](#)

nikhildas273 / Grocery-Bud


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[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

main 1 branch 0 tags

[Go to file](#) [Add file](#) [Code](#)

 nikhildas273 first commit

9f97af2 on Apr 15, 2022

1 commit

app.js	first commit	9 months ago
index.html	first commit	9 months ago
logo.svg	first commit	9 months ago
styles.css	first commit	9 months ago

Help people interested in this repository understand your project by adding a README.

[Add a README](#)

About

No description, website, or topics provided.

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Environments

github-pages

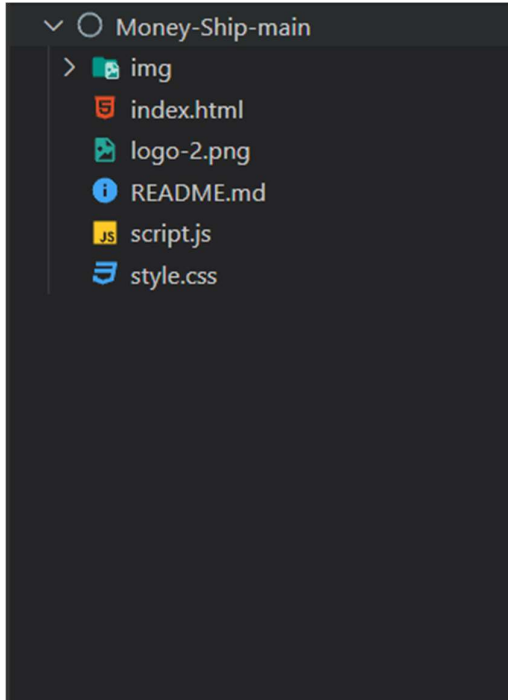
Active

17

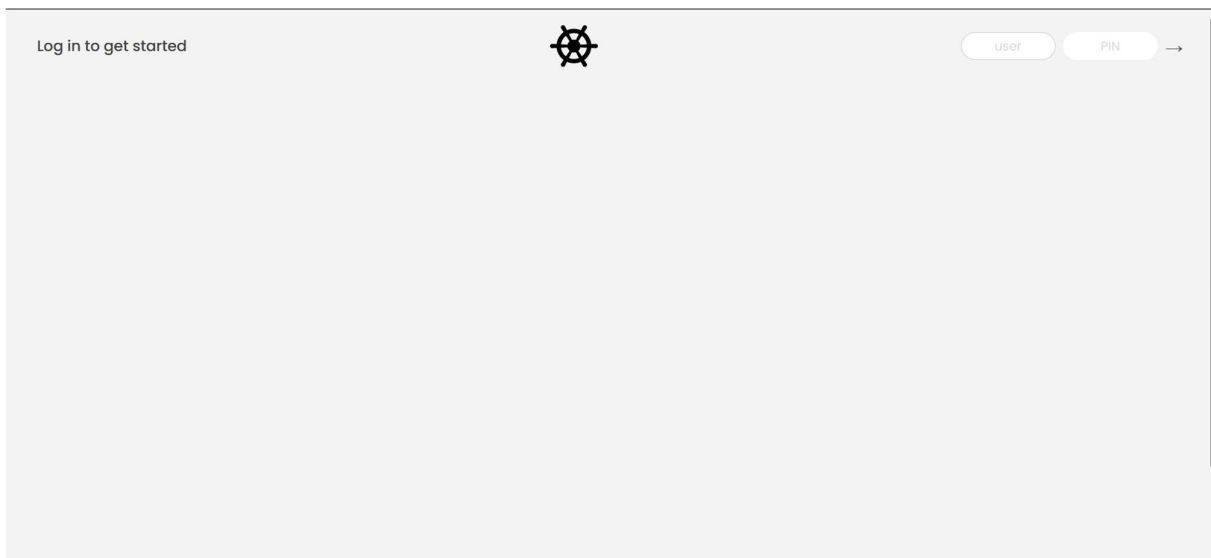
Final Projects

Bank In JavaScript

File Structure



Login Page



Front Page

Welcome back, Arjun

Current balance
As of 05/03/2037

₹3840

8 DEPOSIT	₹1300
7 DEPOSIT	₹70
6 WITHDRAWAL	₹-130
5 WITHDRAWAL	₹-650
4 DEPOSIT	₹3000
3 WITHDRAWAL	₹-400
2 DEPOSIT	₹450

Transfer money

Transfer to: dk Amount: 100 →

Request loan

Amount: →

Close account

Confirm user Confirm PIN →

Transfer money

Transfer money

Transfer to: dk Amount: 100 →

Request Money

Request loan

Amount: →

Close Account

Close account

→

Confirm user

Confirm PIN

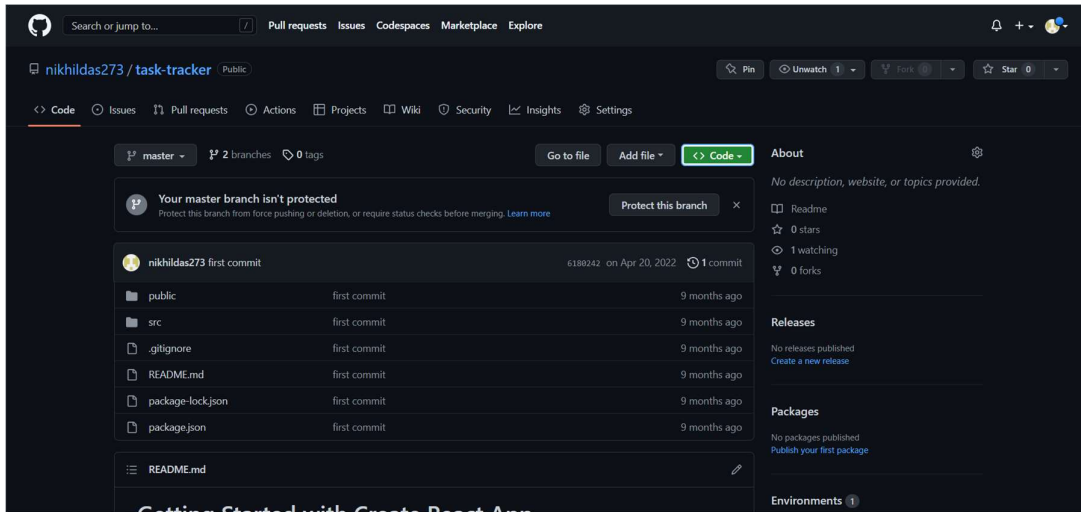
Account Details

Current balance	
As of 05/03/2037	
7 DEPOSIT	₹70
6 WITHDRAWAL	₹-130
5 WITHDRAWAL	₹-650
4 DEPOSIT	₹3000
3 WITHDRAWAL	₹-400
2 DEPOSIT	₹450
1 DEPOSIT	₹200
IN ₹5027 OUT ₹2280 INTEREST ₹59.4 ↓ SORT	

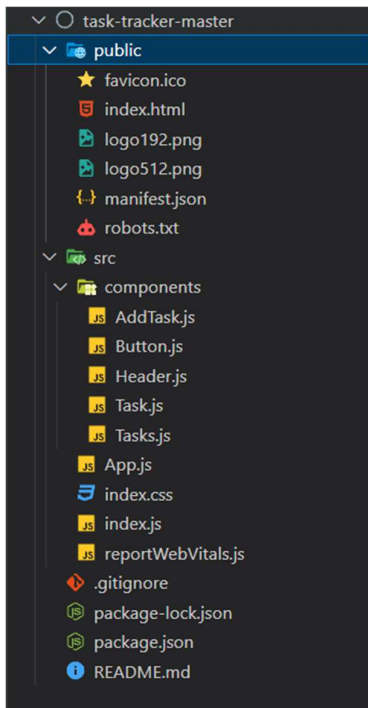
To-do List In React

A to-do list is a list of tasks or activities that need to be accomplished. It can be used for personal or professional purposes and can help you stay organized and on track with your goals. A to-do list can include tasks of any size, from small errands to large projects. To create a to-do list, you can start by writing down all of the tasks that you need to complete, and then prioritize them based on importance and deadline.

Github Repository



File Structure



Front Page

Task Tracker

No Tasks Schedule Yet

Add

Add A Task

Task Tracker

Close

New Task

Add New Task

Day & Time

Add Day & Time

Set Reminder ☐

New Task

No Tasks Schedule Yet

Set A Reminder

Call a Friend

14/01/2023



Call a Friend

14/01/2023



View List of Task

Task Tracker

Add

Call a Friend

14/01/2023



Meeting

15/01/2023



Delete A Task by clicking on Red Cross

Task Tracker

Add

Call a Friend

14/01/2023

×